MEETING OF THE NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

Raleigh, North Carolina November 8, 2012 Minutes

The North Carolina Environmental Management Commission met in the Ground Floor Hearing Room of the Archdale Building, 512 North Salisbury Street, Raleigh, North Carolina. Chairman, Stephen T. Smith presided. The following persons attended for all or part of the meeting.

COMMISSION MEMBERS:

Christopher J. Ayers	William L. Hall	Jeff Morse	J. Dickson Phillips III
Marvin S. Cavanaugh	Benne Hutson	Mayor Darryl D. Moss	Clyde "Butch" Smith, Jr.
Tom Cecich	Steve P. Keen	Dr. David Peden	Stephen Smith
Marion E. Deerhake	Dr. Ernest W. Larkin	Dr. Charles H. Peterson	Steve W. Tedder
Tom Ellis	Kevin Martin	Amy E. Pickle	

DIVISION OF WATER QUALITY:

Bradley Bennett	Alan Clark	Elizabeth Kountis	Jason Robinson
Janice Bownes	Nora Deamer	Susan Massengale	Jay Sauber
Ted Bush	Bethany Georgoulias	Matt Matthews	Lois Thomas
Kevin Bowden	Deborah Gore	Sandra Moore	Julie Ventaloro
Connie Brower	John Huisman	Diane Reid	Chuck Wakild
Amy Chapman	Steve Kaasa	Jon Risgaard	

DIVISION OF AIR QUALITY:	Sheila Holman	
	Mike Abraczinskas	

Mike Abraczinska Joelle Burleson Michael Petratjic

DIVISION OF WASTE MANAGEMENT: Ruth Strauss

Debra Watts

DIVISION OF WATER RESOURCES: Tom Reeder

Tom Fransen Sarah Young

ATTORNEY GENERAL'S OFFICE: Frank Crawley

I. Preliminary Matters

Chairman Smith: (The chairman called the meeting to order at 9:05 a.m.) Are there any Commissioners that know of conflicts of interest or potential conflicts of interest at this time? Please signify.

Mr. Hutson: Mr. Chairman, as the lawyer for the petitioner in item 12-34 I'll be recusing myself on that and due to my firm's representation of Duke and Progress on matters unrelated to this matter will be recusing myself on item 12-40.

Chairman Smith: That's the declaratory ruling?

Mr. Hutson: Yes, declaratory ruling.

Chairman Smith: Thank you. Yes sir Mr. Tedder.

Mr. Tedder: Mr. Chairman I recuse myself from item 12-35 please.

Chairman Smith: Thank you sir. Mr. Phillips?

Mr. Phillips: I will also need to recuse myself from item 12-40, the request for declaratory ruling.

Chairman Smith: Thank you sir. Any other recusals or statements as to conflicts or potential conflicts?

We have three brief but important additions to our agenda. First I'll call on DAQ Director, Sheila Holman for a short statement.

Sheila Holman: Thank you Chairman Smith. Good Morning Commissioners. On October 24th of this year, Laura Boothe, a 20 year member of the DAQ staff, lost her battle to cancer. I just wanted to take a couple of minutes and talk about the many contributions that Laura made, not only to the Division but to the State of North Carolina, through her 20 year service. She began her career in the spring of 1992 and this was in a wave of hiring that the Division of Environmental Management, Air Quality Section undertook to implement the 1990 Clean Air Act Amendments. She spent her career in the Attainment Planning Branch growing both the emission inventory and modeling capabilities of the State. Every required attainment demonstration and maintenance plan for areas in North Carolina through her twenty year career has had a lot of quality input on the part of Laura. She also grew our technical and analytical capabilities and now North Carolina is recognized as having very good modeling and technical analysis capabilities that she played a large role in developing. Of note, you all will recall that she led the air quality side of the mercury deposition evaluation to support the mercury TMDL that was adopted by the commission in September. She's made many contributions to both DAQ and the State of North Carolina. I just want to close by saying that the division has lost an excellent critical thinker and problem solver, a loyal employee and friend. I appreciate your time this morning to acknowledge her contributions.

Chairman Smith: Thank you Ms. Holman.

Chuck Wakild: Thank you Mr. Chairman and members of the Commission. I want to take just a minute to recognize Alan Clark. Alan has announced his retirement effective December 31st so we're going to be losing his skills. Alan served the division for 26 years and initiated the river basin planning effort, wrote basin plans and later supervised that group. He also led the transition for the division from a point source management agency into the nonpoint source arena. He was instrumental in the Tar-Pamlico and the Neuse Nutrient Management Plans and later in the Jordan and Falls, and most recently, in the mercury TMDL that you all passed in your last meeting. But even more than what he did, he was very collaborative or has been very collaborative, still is, in his approach to doing things. He brought in the views and expertise from outside agencies, environmental organizations, business groups and universities and that kind of collaborative approach is always what we have always needed, and we need more of. We're going to miss that contribution. So join me in thanking him for his public service and wishing him a happy retirement. Thank you.

Chairman Smith: Thank you Alan. Then Secretary Freeman will be joining us in about an hour for a short statement. So when he arrives we'll work him into our agenda as quickly as we can. Any other additions, deletions or changes to the agenda?

Mr. Tedder: Mr. Chairman whether we do it now or later on but on the item 12-34 of our agenda as far as the changes to the groundwater rules, for a couple of reasons I'm asking that we maybe consider tabling this until the next meeting. One, because of a late and short amount of time that we've had to review this to its release. But we also got four members that have worked very hard on this issue as long as it has been before the commission, and I think we could all gain by their participation at the next meeting. I'm not aware of any reason this has to be such a rush. I would highly request that we consider postponing this until the January meeting.

Chairman Smith: Alright thank you sir. Let's hold that request until we come to that agenda item. Any other adjustment, changes to the agenda. Then I will ask for your consideration of approval of the minutes of both the September 12 meeting and the October 11 called meeting that we did mostly by conference call.

Mr. Hutson: I move to approve. (Mayor Moss seconded.)

Chairman Smith: Any discussion? (There was no discussion and the motion passed.)

II. Action Items

12-31 Request for Approval of Broad River Basin Hydrologic Model

Tom Fransen: We're at the first of 17 approvals of basin models done. This is a side note: that there's been a lot of interesting basin models in the last couple of years. But it really isn't anything new to the Division of Water Resources. We've probably been doing them for over 35 years. I have documentation where we did model back in the mid to late 70's. It's kind of nice to see that the General Assembly is recognizing the value of the work that we've been doing all along. If you think this is something new, it's new to the Commission but it's something that has kind of been our bread and butter for a long time.

To kind of support this request we did provide three documents to you: a staff summary, a copy of the public notice for the comments on the model and then the full modeling report that's done by our contractor as part of the model contract. To kind of help keep it in focus, we've evaluated the model and based on the comments and everything we feel the model is ready for Commission approval. Since this is the first model to be approved I pulled out the section of the session law that relates to what the model is supposed to be doing as kind of guidance to whether to approve the model or not. These models are supposed to include the surface water resources, groundwater to the extent that we can and we're supposed to be including transfers in and out of the basin, all the registered withdrawals, local water supply plan data, ecological flows when we get them and any instream flow requirements. They're supposed to be able to answer the question, "Is the yield adequate to meet all needs?" Is the yield adequate to meet essential uses and ecological flows adversely impacted and all the data that goes into the model needs to be public record opened for anybody's review. We can't use proprietary information. Ultimately it comes down to section 6 where it talks about the approval of the model so that kind of highlights the statute to give you a reference. The thing to know here is they tell us we're supposed to be able to deal with the model but never tells us what we're supposed to do with an approved model or how it's supposed to be used. We're approving them but I guess it will be up to us to figure out where the appropriate uses for them are for decision making down the road.

For the Broad model and the other basins we've selected a package called OASIS. We feel that's the best one to meet the requirements of the session law. OASIS is basically a water mass balance type model that has got real good tools for being able to incorporate the various operating policies for reservoirs with water systems. For those of you that aren't familiar with what a mass balance model is, it's a real simple equation, change in storage equals in flow minus out flow. The challenge, of course is to get the data and all the information needed to meet those free terms in the equation. The way we kind of describe this to people is you can think of this as storage is your bank account, inflow is your paycheck and outflow is your bills. So this is really nothing more than a complicated balancing your checkbook routine. OASIS is kind of getting accepted in this part of the southeast as one of the better tools to use. South Carolina is planning and modeling all eight of their river basins using OASIS. They got a little behind schedule because they thought they had the funding to start and it got pulled at the last minute. We've worked with the State of Virginia. They've agreed that OASIS is a good tool for dealing with the interstate water supply planning issues up in the Roanoke. I know in Tennessee they're using at least one or two of the non TVA basins over there. It's not just North Carolina using it. It's becoming a standard around here to use. Why are we doing models? What can we use them for? It really gives us a tool to ask the "what if" questions. What happens when population grows? What happens if we move a discharge location, that type of thing? We have been requiring our applicants that are going through the interbasin transfer process to use this to help understand the impacts of their transfer. It's part of this being open and to the public we're making the models available on a DWR server that anybody with a web browser can get through the internet to be able to use them. We've made it available to various users and stakeholders in the basins and their consultants. We've even had some university researchers use the models. They're starting to get accepted and understood well. This will help water systems develop their local water supply plans. It will help the water systems better analyze the water shortage response or drought plans. Part of the plan has to be triggers as to when you go into a drought and what do you do as the drought gets worse, so you can actually analyze this in a quantitative way, are those triggers really helping you or not. It will hopefully make it much simpler and cheaper for

the local governments to do the SEPA analysis when it comes to the impact analysis for EAs and the EISs. Rather than having to go out and develop their own model they'll have a starting point and they can do an add-on piece and that it has already used. Our models have already been used in at least two or three environmental documents that I'm aware of. The process usually takes us roughly two years. We actually started with the contract in May of 2010. We wrapped up the modeling contract in May of 2012. For those especially on the Water Allocation Committee, they know that we have a Technical Model Advisory Group that's a subgroup to the Water Allocation Committee. We've been working with them throughout the process. They're aware of what we're doing and what the progress of the models are. We list three main meetings that we had with broad stakeholder involvement. The truth is we meet with a lot of the stakeholders individually one on one, so those are kind of the big ones. But there's a lot of other ongoing back and forth meetings that we have had with the various stakeholders and users in the basin. Public notice for comments such are departmental responsibility but we did work with the advisory committee to make sure they were comfortable with it before we took it out for public comment.

Talking about what this model is. This is the schematic for the Broad model which we are talking about today. What we refer to as an arc node type model construction, you have the various shapes up there, the triangles are reservoir nodes, the blue boxes can either be withdrawal or discharge nodes. Then the yellow ovals are junctions or a point where withdrawal or discharge occurs. Then the arcs are the lines that connect all those different nodes so water knows how to move through the systems. It can actually be a river segment and in some cases it could be the pipe that's withdrawal or discharge or even the sale to another system. To kind of show the types of output and why we feel the model is ready to be approved, I'm going to show you a couple of slides of the output from the Node 250 which is the Boiling Springs gauge and on the schematic will be the yellow node just below the reservoir. As part of the validation we pick one year and really try to set all the input parameters so it matches what actually occurred in that year, the actual withdrawals and the actual operations. The best data we had to do that with this model was the year 2007 so what we're seeing up here is the hydrographic of Boiling Spring gauge. The blue line is what the model actually produced and the red line is the actual USGS data for that location. From a modeling viewpoint for daily you get a good pattern, the patterns match. You see a little bit of noise around it but that's not uncommon. It's hard to get things to be exactly matched for models. You're not going to find one much closer than that when you start looking at the daily level. Another piece, graphical output that we look at is duration or frequency curves. That kind of gives you the probability of being below a certain exceedance level. So for example the graph on the right you got roughly about 40% chance of it being below a 500 CFS or less. The one on the left shows the full range. Since we're interested in water supply we like to kind of zoom in on the kind of a low flow aspect. We use the 30 percentile on the one on the right. We pick 30 as defining low flow because that's actually used in the National Drought Monitor when they start classifying stream flows that are in drought or not in drought. They're looking at 30% or less. You'll see that it doesn't match real good here at the end but that's not uncommon. We would not call that a Vat; we would say this is an excellent fit. When you get to the far ends of the hydrographs it's not uncommon to be off just a little bit, but that's not going to impact the results of the simulations that we did.

As part of the bill requirement we are required to go out for public notice and receive public comments on the models before they are approved. The Technical Advisory Group agreed with us in May that things were probably in the best shape they could be and that was a good time to

go out for public comment. The public comment period actually lasted from July to August and during that public comment period, we did offer model training for anybody that was interested that had not already had it, so they could have access to the model. The last thing I wanted was a comment that said, "I can't comment because I don't know how to use the model or have access to it." We actually had one person that took us up on that training. It actually turned out that the training was more valuable for in-house folks that wanted to learn more about the model than the outside. But at least it was offered and it was actually taken up on. During the public comment period we only received one comment. That was from Duke Energy. They had some specific comments as to how we were simulating two of their projects and those changes were made and they are part of the model now. The validation run that I showed you was a result of after we made those changes so that's all we had for comments. That's a pretty minor set of comments and those changes are already incorporated in the model.

To go back to the recommendation we feel this model is ready for Commission approval and hopefully you will agree with us this morning and make history to approve our first model. Are there any questions?

Mr. Morse: One question. I know that in the Catawba Basin our Water Management Group has spent hundreds of thousands of dollars in creating a model and that could be using a different platform.

Tom Fransen: That's correct.

Mr. Morse: Is there coordination between the two models? With the data that we are working with will it be able to be utilized along with OASIS model? I mean are there platforms that can combine or give justification to both models. One of the reasons that we went in that direction was to help offset or not offset, but help work with the state in developing different parameters. Will you all still look at the modeling coming out of our basin using the model that platform we're using vs. now the statewide model? How can that be coordinated or have we wasted hundreds of thousands of dollars?

Tom Fransen: You have not wasted money over there. Actually the state has put in more than a hundred thousand dollars. There's another provision of the statute that says if there's a model that already exists or is underway in the basin, that we're supposed to give that consideration as the alternative approach. So we are working, actually just last week out there over in Charlotte for a meeting. We're working with the consultant in the Water Management Group to bring the CHEOPS up to have the same capabilities that we have in OASIS so that at the end of the day we can have that model to come before you for approval. At this point and time the Catawba is the only basin we're probably not going to have OASIS in, unless someone has one that we're not aware of that pops up. The last thing I want is the modelers to have two models out there that are supposed to be doing the same thing, referred to as dueling models. I went through that with the Virginia Beach/Lake Gaston early in my career. We got two models basically saying the same thing and I hate to pick on attorneys. But they were arguing about differences in like six inches. From a modeling viewpoint six inches on Kerr Lake is basically saying the same answer. As much as we can we want to make sure that there's one model used for basin water supply planning.

Mr. Morse: Yes sir. It's encouraging to hear you say that we're working with the state in bringing our model up to an equal standard.

Tom Fransen: A comparable capability.

Mr. Morse: Ok. Thank you.

Mayor Moss: Mr. Chair this item was reviewed at the September 12th Water Allocation Committee so I would move for approval of this item. (It was seconded by Mr. Hall.)

Chairman Smith: Any discussion?

Ms. Deerhake: May I just say as a matter of full disclosure staff and my employer is developing ecological flow related modeling tools. I don't see it as competitive or conflict on my part. Actually they are collaborating a lot with the other businesses.

Tom Fransen: We actually met with them yesterday.

Chairman Smith: (The motion carried.) I see that Secretary Freeman has joined us so I'll call on Secretary Freeman for a statement.

Secretary Freeman: Good Morning. I hope that everyone is doing well. I thank you for your time on the agenda this morning. I have the opportunity to come and speak to you about an individual that I want to publicly acknowledge and recognize for her many years of service. I was looking in the room. I don't think she is present right now but that doesn't deter me in the least in bringing this matter to your attention. Through our own individual journeys in life we always come across people along that journey that are impressive, that are important, that bring to your attention. One of the reasons it is that we find value in public service. Today I want to talk about Robin Smith. I'll disclose that Chairman Smith and I have been colluding a little bit here in terms of recognizing her for her years of service to the department, and that's the reason for me being here and taking time on your agenda. Through that journey oftentimes we come across people that have great talents, they have skills, they have leadership abilities that are really important. Those traits may manifest themselves in very visible ways. It may be the leadership of a mayor, Mayor Moss, or a manager, Jeff, or it may be the service that we provide to our state caring about the air. It manifests itself in lots of different ways. But in the world of public service oftentimes that can be a journey that is quiet. It may be behind the scenes. It may be something that is not noticeable necessarily by the public, but it leads you to a person that may be very persistent, may be very credible; someone that brings to the table great insights into the world of discipline that they may be within their professions. In this case we talk about things that result in clean air, clean water, stewardship of our land, an economy that embraces the environment rather than sees it as an obstacle. In the case of Robin's work I guess it came to my mind most vividly just recently. I hosted the EPA Commissioners Fund, the Region 4 states which are the eight southeastern states and we made a presentation. Robin gave that presentation to our folks who were assembled in our headquarters building over on Jones Street. In that report we were able to not just talk about; we were able to demonstrate as a fact the results of our efforts meaning collectively, we the department, we the commission, we the state of North Carolina beginning in 2002 the work that was done through the Clean Smokestack Act. We are now demonstrating that through the TVA/EPA Agreement that we reached just a year or so ago. Most people aren't aware of much of this due to the work behind the scenes of our folks in the department, Robin being one of those. Why is that important? We can show that we have cleaner air today. When you go outside and you walk from here to the Legislative Building and you take that breath of air, enjoy that. It is there because of hard work. We did that in a way that allows the utility companies from a business model to address the cost of it and to do it over time. We were very proud in that meeting over at the headquarters building that we were able to demonstrate that we've done that with clean air, with attending to the finances, the business model was there, and we stood, as all of a sudden, the envy of the other seven states that were parading around the table because they have not done that. We are far ahead of them. So when we talk about EPA and the transport issues and clean air issues that are tied up in litigation right now, we're able to show that in North Carolina the folks here were forward thinking and we were able to get that done, and we enjoy the benefit of it today. So when those federal laws finally are litigated and they are finalized everyone will be trying to catch up with North Carolina rather than us scrambling to comply. One person that was a part of that work was Robin. A lot of other people, too, but Robin was one of them. Robin is my Assistant Secretary for the Environment. She retires effective January 1, 2013 so next month. December 31st will be her last day with the department. I did not want it to go by without me having the opportunity, particularly with this Commission, and the work that you do, to acknowledge her work, to acknowledge her leadership, her intellect and her abilities to make things work for the state of North Carolina. In all my years of work, which are many now, I won't go into that, there have been very few people that I've come in contact with that I classify as the "Best of the Best". We in North Carolina are fortunate. I have been fortunate to have as a part of my executive management team a person like Robin Smith who has quietly, determinedly, effectively been at work for these past 30 years, 30 years of public service, and can show the accomplishments that have occurred over that time. I wanted to come here before this group so that I could hold her up to you and I hope at the appropriate time we have things planned for her, recognitions and awards and so forth. But for me, having had the privilege to work with her, I couldn't think of anything better than to come and publicly state and acknowledge the value that she has brought to the state of North Carolina and to the people that we represent. So as Secretary of the Department on behalf of the Governor (I just came from Governor Perdue prior to this meeting), on behalf of the almost ten million people now that call North Carolina home, I want to compliment her on her service to the state of North Carolina, the work that she has done for this agency and this department. Mr. Chairman, I am sure that you will agree to this Commission in what value that has brought to us. We are all better for her public service to the state of North Carolina and I certainly as Secretary of the department have been privileged to have someone like that on my team that has always done just an outstanding job for me, been innovative, creative and a great problem solver. Those are the comments that I'd like to share with you and if she were here I'd call for a standing ovation. But she is not here and I hope that you will have appropriate words for her at whatever time you find.

Chairman Smith: Thank you Mr. Secretary. There's no doubt that Robin has been an invaluable help to this Commission for many years and has been instrumental in (I would say) all the major environmental legislation in this state for at least the last ten years. So thank you for being here.

Secretary Freeman: Thank you sir. Thank you Ladies and Gentlemen.

Chairman Smith: We're returning to our printed agenda.

12-32 Request to Proceed to Hearing on Revisions to New Source Review and Prevention of Significant Deterioration (PSD) Nitrogen Oxides (NOx) Significance Level for PM2.5 (512) and PM2.5 Increment (516)

Patrick Knowlson: I'm here to present two rules today. The first one is 15A NCAC 02D .0531. This is the New Source Review, NSR rule and it pertains to sources in nonattainment areas. The other rule is 15A NCAC 02D .0530 which is prevention of significant deterioration, or PSD, a rule that pertains to sources in attainment areas. Both rules are being amended to lower the nitrogen oxide significant level from 140 tons per year to 40 tons. The PSD rule is also being amended to implement the new federal PM_{2.5} That's fine particulate matter increments. The first one, the NOx significance level, is when a new source or existing source or one under major modification, has the potential to emit greater than the level set in the rule. In this case of the PM_{2.5} significant level. It's 40 tons under the federal program. When they emit above the significant level then they have to go through a best available control technology review or BACT analysis. Back in 2010, this Commission adopted a NOx significant level of 140 tons. We made a demonstration that would be a good level for the state. EPA came back to the state and said; although we made that demonstration they could not, except for the SIP, approve a level above 40 tons. So we are amending the rule to EPA's requirements of 40 tons. The second change is the PM_{2.5} increment. What the PSD increments are or any increments but for the PM_{2.5} is a maximum allowable concentration increase for that pollutant area. EPA adopted these increments in 2010 and we have to adopt them as part of an approvable SIP. Level 4 based the PM_{2.5} increments is 1 microgram per cubic meter in Class I areas and 4 micrograms per cubic meter in Class II areas. Class I areas are areas like national parks and Class II would be the rest of the state. We completed a fiscal note for this rule package and it was submitted back in September. It was approved by OSBM on October 10th. The NOx SIP levels we did not determine any fiscal impact at all to the rule change for the change in the increments we determined they like models about 130 some thousand to the regulated community and small increase to the Division for increased modeling effort, the permitting group. The Director recommends that the Commission approve these amendments and the fiscal note and authorize a public hearing.

Ms. Deerhake: The Air Quality Committee heard these items in September and voted to bring it to the full Commission for consideration. So on behalf of the committee I move that we proceed to public hearing.

(Mr. Cavanaugh seconded.)

Chairman Smith: For clarification, is the motion for both rules and for approval of the fiscal note?

Ms. Deerhake: Yes sir.

Chairman Smith: We have a motion by Ms. Deerhake and second by Mr. Cavanaugh. (The motion passed unanimously.)

12-33 Request for 30-day Waiver and Request to Proceed to Hearing on Revision of Volatile Organic Compound (VOC) Reasonably Available Control Technology (RACT) Rules Applicability (513) and Clarifications (511)

Chairman Smith: While Ms. Burleson is coming up we'll do this in two motions, one on the 30 day waiver which requires the 75 percent approval, I believe and assuming we approve the 30 day waiver the other on the rule itself.

Joelle Burleson: As Chairman Smith stated today I'm here to ask for a 30 day waiver on amendments to our volatile organic compound reasonably available control technology rule amendments. The need for the waiver is due to the fact that these amendments are necessary to continue, correct and to meet requirements of the Clean Air Act and allow EPA to continue processing North Carolina's re-designation request for the 1997 8-hour ozone standard nonattainment area. That is the metroliner nonattainment area. In order to complete the rulemaking process and allow adequate time for EPA to complete its processing of these rules and that request, we do need to go ahead and move forward, and I would note that we did bring initially this package to the Air Quality Committee in September. But we received some comments that required us to pull in a couple of other rules and adjust the package and EA accordingly. Since that time we've done that and come back to committee yesterday.

Chairman Smith: Thank you. Discussion?

Ms. Deerhake: So Mr. Chairman we did hear the additional revisions yesterday and voted to first of all request the 30 day waiver of the EMC and then bring it to the commission for discussion today if approved. On behalf of the Air Quality Committee I move for a 30 day waiver.

(Mr. Cavanaugh seconded.)

Chairman Smith: Ms. Hauser corrected me. This requires a two-thirds vote, not a three-quarters vote. Discussion? Are there any abstensions? So then the motion carries.)The EMC voted unanimously.)

Ms. Deerhake: Ms. Burleson perhaps would like to present some more information about the main package.

Ms. Burleson: As I alluded to in the request for the waiver, the amendments to these rules are necessary to comply with the requirements of the Clean Air Act. North Carolina has one nonattainment area technically still relative to the 1997 8-hour ozone standard and that's the metroliner nonattainment area. That area has received what's known as a clean data determination from EPA based on monitoring data from 2009-2011. The area is actually attaining the standard, the 1997 8-hour ozone standard and even more recent looks at data from this year continue to show that the area continues to attain the 1997 8-hour ozone standard. However, the Clean Air Act requires that the RACT requirements apply to all sources in categories for which EPA has issued something known as a control technique guideline document. In North Carolina, current rules found in 15A NCAC Section 02D .0900 that address those categories' specific requirements based on the CTGs, are currently structured such that the applicability applies only to major sources for a moderate nonattainment area like the metroliner area. Those are sources in greater than 100 tons or greater, volatile organic compounds. To meet the Clean Air Act requirements and allow EPA to continue processing our redesignation requests the data determination allowed us to request the area be redesignated. EPA, in reviewing that request, identified this particular concern that all sources need to be addressed in applicability for those CTG categories, and so the

proposed amendments before you today include extension of applicability to less than 100 ton sources in categories for which EPA has published a CTG. We brought rules to you back in the September 2010 timeframe that updated all our CTG related rules in section 02D .0900 for these specific source categories. Periodically EPA publishes new CTGs. You approved those rules back in the 2010 timeframe and they were submitted to EPA for approval at that time. As EPA moves forward with reviewing the re-designation requests by this additional concern prevents them from moving forward until we've addressed it. The amendments, in particular in the rule cover rules 02D .0902, .0909, .0951, .0961, .0962, .0903. Sorry I skipped that one and 02Q .0102.

02D .0902 is the applicability rule. That's where we've adjusted the applicability threshold. We've also included measures and language within that rule that allow for a shift of the requirements in the CTGs, CTG related rules in section .0900 to contingency measures upon re-designation of this area. While EPA can't rely solely on the monitoring data and say that we don't need to meet this requirement of the Clean Air Act, their procedures do allow for measures that have not yet been implemented in an area that is attaining to be shifted to contingency measures if the area is redesignated. So we've gone ahead and incorporated language that would allow for that shift upon re-designation of the area. That's what we anticipate would happen as a result of this rule package assuming that the Commission moves forward and approves the adjustment of the applicability. We anticipate that EPA will move forward with its process to approve the re-designation request. In 02D .0909 we also provide updates to the compliance schedule for the newly affected facilities in the unlikely event that the area is not redesignated as part of the complete rule package. That's something we would need to have. In EPA's request, paragraph (b) in .0909 somewhat later in this process includes a clarification that sources subject to statewide rules listed in .0902(e), and those are rules that have applied for quite some time primarily to gasoline distribution type facilities in the state, they aren't exempt from the requirements but simply comply with the requirements as specified in those particular rules as opposed to the compliance schedule in .0909.

02D .0951 is a rule that allows, with these amendments, flexibility for sources to comply using either the category specific rules or case by case reasonably available control technology determinations approved by both the state and EPA.

As I mentioned earlier we did have some concerns raised very close to the Air Quality Committee back in September that caused us to go back and address two rules which we had been working on but had been basically clarifications prior to this change. As the EA was published and reviewed by folks they determined that this could be a concern our industry smaller sources could be impacted, and we have smaller sources in our industry. We reviewed those concerns and found it appropriate to pull those rules in at that time. Those two rules are 02D .0961 and .0962 and they deal with the printing industry. Clarifications are indicated in the rules in the package before you and are consistent with the recommendations in the underlined control technique guidelines documents. There is a change of .0961 that does allow for an equivalent rule in 12-month applicability threshold and that provides a little bit of relief to some of the sources, should these rules ever be implemented either under the contingency measures scenario or from a recordkeeping standpoint. It also includes language clarifications and at the request of the industry adds some specificity with respect to recordkeeping that's required since there are smaller sources not as familiar with the process, while we still try to retain flexibility for the existing sources who have been complying for some time.

02D .0962 involves industrial solvent cleaning category and the industry association in this case had a very particular subset that had a technical difficulty with some of the limits and alternative limits are included within the rule for that category of sources. Those are in particular the cleaning resins, inks and coatings manufacturing sector and for cleaning of their equipment, there is an alternative VOC content limit as well as their work practice option for compliance with measures under those rules. Those are

consistent also with recommendations in the CTGs and their underlined requirements, and have also been approved as the printing measures in other states rules to implement CTGs approved by EPA.

In .0903 we have some cross reference type wording that allows for the daily recordkeeping that I mentioned in the printing rule and particular to a cross reference change as paragraph labeling change during this rulemaking process. We've analyzed our inventory information and with respect to the economic assessment we've had that reviewed and approved by OSBM. It has been certified for the next step in the process moving forward to public hearing and the bottom line of that assessment is that there really is no cost under the likely scenario that the area is redesignated following adoption of the correction to the applicability threshold. We did however make a good faith effort to estimate what the impact could be if that did not occur and if the measures were brought in under a contingency scenario. It still makes it unlikely that these measures would be implemented even under a contingency scenario, an analysis would be undertaken by the Division to determine what measures really would be needed if there was a future violation of the 1997 standard before it's revoked. Based on the science that we know about ozone formation, as most of you know, the ozone is formed through photo chemical form reactions of NOx VOC in the southeastern states and North Carolina, in particular there's an abundance of VOCs which makes NOx the driving factor in formation of ozone. We don't anticipate that the analysis would show that BSU reductions would actually achieve reduction in ozone. That's a widely recognized fact in the air community.

That being said, in summary we would request that you approve these amendments to go forward to public hearing and that the EA be approved as well. Thank you.

Ms. Deerhake: On behalf of the Air Quality Committee who voted to bring it to the full Commission I move that we carry this to public hearing and that we approve the economic analysis. (Dr. Larkin seconded.)

Chairman Smith: Questions or discussions?

Mr. Hutson: I have one question. We do this ...when's the timeline? When do we expect that EPA would finally say this is no longer a nonattainment area and have that albatross off the neck of the metro liner area?

Ms. Burleson: In fact we would actually be seeking parallel processing of this action so that EPA could move forward as quickly as possible. There is some expectation that the 1997 standard may be revoked by July of next year when the transition to the 2008 standard, and that's part of the need for the request for the 30 day waiver today which is to allow the processing to occur in time for all the approval actions to take place.

Chairman Smith: (asked for a vote. The vote was approved unanimously.) Thank you Ms. Burleson. Let me also thank Mr. Hutson who has agreed to be the hearing officer for both of these rule packages. We anticipate doing those hearings on the same day.

Ms. Deerhake: Mr. Chairman, I just want to point out and thank the staff for the summaries that they provided of economic analysis. They're very informative and great orientation tools for those of us on the Commission who don't use this program on a daily basis.

Chairman Smith: Thank you.

12-34 Request for Adoption of Hearing Officer's Recommendations on Proposed Changes to Groundwater Rules: 15A NCAC 02L .0113 -Variance and .0202 - Groundwater Standards

Chairman Smith: As you all very well know this is one of a couple of things that we just can't seem to get rid of. We've easily heard this at great length a half dozen times, I would estimate. Before I call on Mr. Phillips who is the hearing officer and has served very well on this matter, we have a request that we consider postponing this from today to another day. So let's hear further discussion on that. Mr. Phillips: Let me speak briefly to the timing of this being presented. Since Mr. Hutson can't speak; he can't agree with me on this but I'm sure he would but there's a certain deceptive simplicity about this that just about changing one little number that nobody seem to have any particular problem with the proposition that it be changed with respect to this applicant. But it did have a certain receeding horizon quality and a briar patch quality, and we did ultimately come to....I came to a recommendation. The staff developed an alternative that I think both of them are within the outer bounds of the proposals. The alternatives were put out to public hearing and had been, as you say, presented to this Commission in various forms a couple of times. Again, I'm like you. I'd like to get this concluded and I do think it's within the bounds of what we've put out so I'm trying to prepare to proceed today.

Mr. Tedder: I understand the comments. I also understand the complexity. It's not really a simple matter. I think it does make a difference that we participate in today's discussion and for that reason I would like to make a motion that we table this until a subsequent meeting. (Mr. Morse seconded.)

Ms. Hauser: And that needs to be a definite time. I would recommend your next regularly scheduled meeting which is January.

Chairman Smith: So would you amend the motion so that it be rescheduled for our January regular scheduled meeting and Mr. Morse you agree with that? So we have a motion by Mr. Tedder and a second by Mr. Morse. Other discussions on whether we hear this case today or whether we hear it in January?

Considerable discussion ensued on the question of postponement.

Chairman Smith: (asked for a vote to postpone the agenda item. The motion passed.) I'll note that Mr. Hutson recused himself and did not participate. So we hear that at our regularly scheduled January meeting.

12-35 Request for Waiver of 30 day Rule and Approval to Proceed to Public Notice with Proposed Rule Amendments to Phase II Stormwater Requirements in Accordance with (S.L.) 2011-220

Mr. Patterson: Just a little bit of background. Over the past few years we've been working on moving two other session laws regarding stormwater requirements into the 02H rules. Those are the Phase II and the coastal stormwater session laws. At the end of that process another Session Law 2011-220 was passed that made a change to the Phase II session law. The original Phase II

Session Law 2006-246 required some counties to apply Phase II stormwater requirements across the entire county based on a county growth rate criteria. The session law referred to this as a "tipped county". The 2011 session law modified that growth rate criteria as part of that, it requires those two modifying rules that we adopted per the original Phase II session law. Based on that new growth rate criterion, it resulted in one of the counties that had been subject to county wide Phase II stormwater requirements to no longer being so. We've been implementing that 2011 session law since it became effective on June 23, 2011. The easiest way to display the result is with the original Phase II session law on the left side of the slide you'll see all Davie County has some color of shading in it, so everywhere within the county had to meet Phase II stormwater requirements. After the 2011 session law on the right side you'll see there's just a small portion now that is subject to Phase II stormwater.

So I'm here today basically to request approval to proceed to public notice of the amended rules and those are the 02H .0125 and 02H .1016. The fiscal note addendum is just a simple addendum to the original Phase II fiscal note. OSBM approved that last month and basically stated there is little or no impact. Then again it is no change to what we are currently implementing today. So with that, any questions?

Chairman Smith: Thank you Mr. Patterson. We have three matters to consider and I believe that we can do those in two motions. One on the request for 30 day waiver which requires a two thirds vote and then the second, we can do the approving the fiscal note and going to public notice on the rule in one motion.

Dr. Larkin: Mr. Chairman on behalf of the Water Quality Committee I'd like to move that we waive the 30 day rule. (Mr. Hutson seconded.)

Chairman Smith: (asked for discussion. The vote was unanimous and the motion passed.) Ms. Hauser has reminded me that for the minutes we need to note the two-thirds approval so were there any abstentions? None. Alright. Thank you. Then the 30 day waiver is approved.

Dr. Larkin: I would then like to move that we proceed to public notice with the proposed rule amendments to Phase II stormwater requirements in accordance with session law and that we approve the fiscal analysis. Mr. Morse seconded.

Chairman Smith: asked for discussion and there was none. The motion passed.

Let me note also on #12-25, the one we just approved but note that Mr. Tedder recused himself and did not participate in that discussion.

12-36 Request Approval of NCDOT's Jordan Lake New Development Stormwater Management Program and Delegation of Further Approval Authority to the DWQ Director

Jason Robinson: We received permission yesterday from the Water Quality Committee to proceed today to the full Commission with this item. Before I request your approval of the DOT's program and seek DWQ Director delegation, I'll give a background on the Jordan nutrient strategy, specifically the Jordan State and Federal Entities Rule and how it pertains to the DOT, and then briefly cover key details of the DOTs new development program.

So the background: the Commission approved the Falls Lake local government new development programs in January and Jordan local government programs in May and September of this year. This is the DOTs new development program and the Falls DOT new development program which will be coming before you in January 2014. In July of this year the Commission approved the stormwater and nutrient load accounting tool for DOT new development and the Jordan/Falls watersheds. This was a modification of the local government new development tool that was developed by NC State. That was approved last year by the Commission. So the Jordan State and Federal Entities Rule required the DOT to submit a program to manage the stormwater on new development by February of this year and DWQ has reviewed these programs, and are bringing our recommendations today. Staff and various DWQ workgroups have reviewed the programs, met with the DOT to work through some issues and find the revisions the acceptable. Now I'll talk to you about some key details of the DOT program. Overall the requirements parallel the requirements of the local government new development programs. I'll highlight the notable differences and go through these key details. For the DOT road projects they are deemed compliant if they meet the requirements of the Jordan buffer rules. This is the same as for local public road projects that are done by local governments. For non road projects, the key difference is that DOT doesn't have the same more stringent, one BMP minimum requirement that local governments got through a session law that was introduced in 2009. However, the DOT did maintain more stringent offsite thresholds than were in the rule that was originally adopted by the EMC. Another notable difference is regarding the non road projects of the DOT is that the program proposes the NCDOT hydraulics unit carries out the permitting of these nonroad projects. This is consistent with the DOT's existing NPDES permitting procedures and DWQ will review the DOT's execution of these responsibilities through DOT's annual reporting and the existing auditing procedures that are set up in the DOT's NPDES permit. So requested actions after DWQ staff has reviewed DOT's revisions and the program now meets the requirements of the Jordan State and Federal Entities Stormwater Rule. We request that you approve the DOTs Jordan New Development Program and also ask that you delegate authority to approve any subsequent program amendments to the DWQ Director. The Director would forward any amendments of concern to the Water Quality Committee for their review. This is similar to what has been done with the Jordan buffer programs and Jordan local government new development programs. If approved, DOT will have two months to be implementing their program and start reporting annually thereafter. With that I'd be happy to answer any questions that you have.

Chairman Smith: Questions of Mr. Robinson? I believe we can do this in one motion even though it is two items. One is approving the DOT program and then delegating further authority to the Director regarding similar approval.

Mr. Tedder: Mr. Chairman I make a motion to approve staff recommendation. (Mr. Butch Smith seconded.)

Chairman Smith: (asked for discussion. The motion carried.)

12-37 Request for Waiver of 30 day Rule and Approval to Proceed to Public Notice and Hearing with Revisions to the Consolidated Buffer Mitigation Rules (15A NCAC 02B .0295) That Were Approved for Public Notice and Hearing by the EMC in the July2012 Meeting and for the Proposed Repeal of Buffer Mitigation Rules for the Neuse River (15A NCAC 02B .0242), Catawba River (02B .0244), Randleman Lake (02B .0252), Tar-Pamlico River (02B .0260), Jordan Lake (02B .0268), and Goose Creek Watersheds (02B .0609) and Associated Fiscal Note

Chairman Smith: This is another one that won't go away. We've heard the various aspects of the consolidated mitigation rules repeatedly and here it is again.

Amy Chapman: Hopefully this is the last time I have to bring this to you until after the public hearing which actually I won't be the one bringing it to you again, since I've recently got a promotion. Eric Kutz will be the next victim (laughter) for this particular rule so congratulations to Eric.

Well just to give you kind of a background, the rules are required by state statute and it is listed right there on the slide. Per that statute the EMC is to adopt rules for construction of alternative measures for buffer mitigations specifically that reduce the nutrient loading as well as or better than the riparian buffer that's lost. So we think these proposed rules implement that statute and will update and revise the six existing buffer mitigation rules. The reason that we're back is kind of convoluted. But back in July of 2012, the Water Quality Committee and the EMC approved the draft rules to go to public hearing and public notice. Since that time it came to our attention that we were to go through the process for repealing the six existing rules so we were on the agenda for September to do that. Then OSBM came to us very close to that September meeting and had a lot of revisions for the fiscal analysis. So we removed that item from the September agenda and we thought that since we had gotten some input from stakeholders on a revision to the draft rule which is bullet number one up there since the July meeting, that we would also revise .0295 mitigation rule based on stakeholder comments. We would come to you for repealing the six existing buffer mitigation rules and we would revise the fiscal analysis that OSBM wanted us to do. In this slide we did add option two to (k)(1) (D) which gives buffer mitigation credit past the five year monitoring period because there was only the one option in the draft rules that were approved in July that basically, once you finish your five year monitoring period for alternative buffer mitigation, then we would approve it and that's it. But the rules have taken four and a half years now and there are currently projects on the ground that are alternative buffer mitigation projects that they wouldn't get credit if they didn't have this option two. For adding in option two into the rule and to the fiscal analysis we have an added benefit of 3.4 million dollars. We also added in the fiscal analysis the cost of repealing, the six current buffer mitigation rules and that's a zero cost. Instead of coming to you with a draft fiscal analysis I made sure that Budget Planning and Analysis and the Office of State Budget Management were ok with the fiscal analysis and they have signed off on it. So we're good there. So the benefit of the rule changes: it's easier to understand and it's consistent amongst the six buffer rules. There's flexibility because right now in the mitigation rules you

can either plan a buffer or pay into a bank. That's it. These rules give you some flexibility for doing BMPs or for having narrow buffers on urban streams, that sort of a thing. We think that these rules will also increase the number of sites and options for buffer mitigation. It's a value to several stakeholders, homeowners, commercial communities and land developers, everybody, the whole gambit. We think that these rules are consistent with Executive Order 70 and Senate Bill 781.

So the recommendation today is to request a waiver of the 30 day rule and approval to proceed to public notice, public hearing with the proposed repealed buffer mitigation rules, revised consolidated mitigation rule and the draft fiscal analysis. Questions?

Chairman Smith: Thank you Ms. Chapman. Are there questions or comments? This needs to be in two motions. So first is there a motion for the waiver of the 30 day rule?

(Motion by Dr. Larkin and second by Mr. Phillips. No discussion and the motion carried.) Are there any abstentions? None. Then next to proceed to public hearing on the various rule changes that Ms. Chapman just described. Is there a motion to that effect?

(Motion by Mr. Morse and second by Dr. Larkin. No discussion and the motion carried.)

Thank you Ms. Chapman and congratulations on your promotion.

12-38 Request to Approve the Repeal of the Clean Water Bond Act (01A NCAC 22 .0101-.0102, .0201-.0209, .0301-.0303, .0401-.0403, .0501-.0506, .0601-.0606, .0701-.0704, .0801-.0802, .0901-.0906, .1001-.1002, .1101-.1103)

Gary Kreiser: I'm with the Classifications and Standards Unit and we're asking today for the EMC to approve the repeal of the Clean Water Bond Act. If you recall, at the September 2012 meeting the EMC approved to go to public notice to propose repeal of Title I Chapter 22 of North Carolina Administrative Code known as the Clean Water Bond Act. As part of Executive Order 70 these rules are identified by the OSBM as being obsolete, they should be repealed and there's no cost associated with this repeal. Also, if you recall, these are Department of Administration (DOA) rules that were administered by DENR. Originally all three agencies revised by the Rules Review Commission staff to pose repeal of these rules and to publish joint public notice in the North Carolina Register. This advice was based on enabling legislation that allowed for the DOA, the EMC and Commission of Public Health to adopt rules to administer this act. The legislation also stated that no rule or regulation jointly adopted may be modified or revoked, except upon a concurrence of all three agencies. So in anticipation of all three agencies agreeing DOA published a notice August 15, 2012. The public notice period lasted until October 15, 2012 and no comments were received. Updated advice from the RRC staff stated that only DOA needed to publish the notice and the other agencies only needed to approve the rule repeal. Therefore, the EMC only needs to approve the repeal. So in summary these rules are obsolete, there's no cost associated with this rule repeal and it is recommended that the EMC agree to repeal the Clean Water Bond Act as published by DOA in the August 15, 2012 register. I'd be happy to answer any questions.

Chairman Smith: Thank you sir. Questions or comments?

Mr. Hall: (made a motion to approve the staff recommendation. Mr. Hutson seconded. No further discussion and the vote was unanimous. The motion passed.)

12-39 Request for Adoption of Division of Water Quality Recommendation for EMC Approval of 303(d) Assessment Methodologies

Chairman Smith: By way of introduction let me say this and I think you all know this. I believe that at our September meeting we asked for public comment on two questions. One, whether the EMC should be further involved in the setting of the 303(d) assessment methodology. That's the assessment methodology as opposed to the list itself. Two, if so in what way, to what extent? We received various public comments, a good amount of public comments. I was pleased with the public participation in those questions. Those comments have all been posted to the EMC web page in total and then a DWQ summary of those comments has also been posted. In thinking about how to proceed I requested our DWQ staff to consider whether or not, they being the most intimately familiar with the 303(d) assessment methodology and how it is created, if they would be willing to consider a recommendation of how we proceed in those questions. That is, whether we should be involved in setting the assessment methodology. Statute seems to indicate that or whether we should delegate it like we've done in permitting, for instance, and if we're involved to what extent. So Ms. Stecker is here to give us the DWQ recommendation. Thank you, ma'am.

Kathy Stecker: Before I began I'll just note that last week your information item 12-15 was removed from your agenda. That item was titled Update on 2014 Water Quality Assessment Methodology. We've essentially combined that item and this current action item. Chairman Smith has already reminded us of what we were soliciting public comment on and we did get 14 sets of comments and you do have those as attachments. We reviewed those comments and are bringing you this recommendation today. As a refresher here's a greatly over simplified diagram showing the timing and major milestones for water quality assessment under section 303(d) of the Clean Water Act. You can see where we are now, late in the even numbered year, when we would typically be wrapping up our review of the assessment methodology. Dated delivery will begin early next year which, by the way, will be five year's worth of data. Typically about a million observations followed by the assessment itself and then entering an overview of the results of the assessment. At start of the next even numbered year we will, as always, have a public review and comment period for the 303(d) list itself. Then we submit the list to EPA for approval by the regulatory deadline date of April 1st and start all over again. Based on the comments received we are proposing to add a new milestone, your approval of the methodology used to develop the 303(d) list in January for the 2014 list. That approval step would take place earlier in the cycle for subsequent lists. Right now we have our current methodology out for public comment and you have it as attachment C. We'll consider the comments we've received on that and assuming the Commission adopts our recommendation, we will come back to you in January with a recommended methodology. We will compile the 303(d) list based on that assessment methodology that you approve. The 303(d) list itself will go out for public comment in January of 2014. This public comment period is already part of our current process. Then we would come back to you. We could come back to you in March of 2014 and give you a summary of the results of applying the 303(d) assessment methodology before we submit the list to EPA for approval by April 1, 2014. This slide shows the proposed schedule for the 2016 assessment if you adopt our recommendation. It's identical except for the first two bullets. You can see that the public comment on the 303(d) methods and EMC approval take place earlier in this cycle.

So to summarize what we are proposing, adding the step of EMC approval of the 303(d) listing methodology including a public comment period at the start of each two year cycle and so we recommend that you adopt this proposed process. I'd be happy to answer any questions. Thank you.

Mr. Morse: One quick question and then a brief comment. The process of coming before the EMC, I would assume that our normal procedure is it would first go to the Water Quality Committee and then with a recommendation to the EMC. Is that what is anticipated?

Ms. Stecker: If that's what you would prefer. For this cycle because we're so far into the cycle if we did that we could run the risk of being late. In the future if that's what you would prefer we could do that.

Mr. Morse: Ok. I want to thank the staff and the Commissioners, especially the Chairman for the leadership that they took in getting this before the Commission and I think the results are outstanding. Thank you.

Mr. Tedder: I have not so much as a question but a comment. For the 2014 I understand that it is already out to public notice and going through that process as Commissioner Morse mentioned and I think the Chairman had said in previous discussions of this that whatever the outcome that it would come back through Water Quality Committee, and then with a recommendation from that Committee to the full EMC for consideration. I think that should still be part of 2014. Even at that point if we wanted to consider a waiver of the 30 day rule that's up to the Water Quality Committee at that time. I have no problem with that and support that with the little addition. As far as the future 303(d) methodology process it is fairly similar. The one thing that I think is probably missing is in addition to the 60 day comment period, one of the things that I've heard repeatedly and actually facilitated a meeting of local governments to better understand, not only the 303(d) process. (I know Kathy and some of her staff were at that.) But also other staff that are involved in the data production, collection and evaluation. Most folks don't understand a lot of that and it was an extremely good meeting and I would suggest that the process include at least one public meeting. Not a hearing but a public meeting so that any questions they have could be answered or they'll have the option to get that face to face during the process. I think it would be a big improvement. Again, then the issues coming back through Water Quality and then to the full Commission and I think that would be an ideal process, in my opinion. I definitely support that.

Chairman Smith: Other comments? I'll make a couple. Having thought about this a lot like you probably have and having read, considered and discussed the comments, it is initially very tempting to seriously consider delegation of this to DWQ as we have done with permitting. That is we have the statutory authority and then we can delegate that authority to staff. Because the science in this and the setting of the assessment methodology is unusually detailed and complicated we deal with a lot of things that are complicated and challenging scientific basis, and I think for the most part do a good job at that with the combined expertise. But then I would think that. It's tempting to see this as another good opportunity for full delegation. I also think the staff's recommendation is a good one. That is that we have end of the line oversight rather

than beginning of the process detailed participation. I think that would swamp us and likely be a fiasco. Then the only other comment I would say is that if we do approve this since it's not rulemaking it wouldn't require, if we took it to the Water Quality Committee (which I'm not opposed to; makes sense) it would not require a 30 day wavier because it's not rulemaking. The timing of that would not be a problem. Those are my comments.

Mr. Hutson: I just concur with the others. I think our role on the commission, at least of having the diverse interest here, having some oversight as to what is going on. I don't want to substitute my scientific knowledge because I don't have any. I think my first meeting here seeing what happened on the mercury TMDL where (as I understand it now) the fish consumption advisory which never saw any light of day public review and comment got carried through to the methodology and the like. At some point this process has to have review by those outside of the staff to just make sure that it meets the standards of the public that we are representing here or expecting to be met. It is a good recommendation and I would not favor delegation either Mr. Chairman.

Mr. Morse: I make a motion that we adopt the staff's recommendation and also include that this matter go before, that it be presented first to the Water Quality Committee and it doesn't require a 30 day rule revision that we allow it go before the Water Quality Committee and eventually for the 2014 as well. (Mr. Tedder and Dr. Larkin seconded the motion.)

Mr. Phillips: I think this is a good policy decision to have some oversight over this process and put it more in the light of day. I commend those who have urged that this happen. I want to say on a couple of comments we received that I thought particularly resonated, including those from former Secretary Bill Holman concerning the importance and based on experience of separating science and policy making. I hope and trust as we go forward we'll keep that distinction in mind and we don't want to be injecting ourselves into saying what proper science is and what proper conclusions can be reached from science. Also keep in mind the integrated program that the staff will bring to us as part of their methodology to respect that they have a package together that in significant ways need to hang together. Thank you.

Dr. Larkin: There's a difference in review of assessment methodologies and a review of individual determinations. I think what we're doing is our appropriate role.

Chairman Smith: I would echo both of those comments. (There were no other comments. The vote was unanimous and the motion passed.)

Mr. Morse: Is it possible, I know how busy the state staff is, but as a Commissioner I would appreciate an opportunity to maybe get some further background on methodology. So when we do look at the policy that we have a better knowledge of the methodology process, not that I'm asking to have a scientific evaluation done. But I think for the Commissioners, at least for me in particular, I'd like an opportunity to have some tutoring.

Chairman Smith: I can speak to that. Yesterday DWQ Director Wakild suggested to me that for a future information item on the EMC meetings, they can come and give us a lengthy tutorial. He said up to a couple of hours if we chose, on what the 303(d) assessment methodology looks like, how it is reached, issues relating to creation of a development of an assessment methodology as opposed to its application to particular stream segments. He suggested that if we

have a call meeting in December relating to the next agenda item that might be a good time to do it. Ms. Hauser informs me that we're not going to have time in December as we are only going to have a couple of hours. So we'll think about scheduling and what to do. It may be that our January agenda will provide us with the time to do that. If you all give some thought to how much of a presentation you would want, full presentation or some limited portion and send me a message or let me know, so that we can do that scheduling. Good suggestion.

Any other comments? Thank you.

12-40 Request for Declaratory Ruling Cape Fear River Watch, Sierra Club, Waterkeeper Alliance, and Western North Carolina Alliance

Chairman Smith: Then item number 12-40 which is a request for declaratory ruling from Cape Fear River Watch, Sierra Club, Waterkeeper Alliance, and Western North Carolina Alliance, a couple of things about this. It is 10:39 and for scheduling purposes you all know that if we see that our meeting is going to take into the afternoon, we generally break for lunch for 30 or 45 minutes, somewhere right about noon. What we have here and I'll ask Ms. Hauser's clarification if I don't state this correctly. This is the first stage of a request for declaratory ruling so we will not hear this case on the merits today. We will hear the first step in the declaratory ruling statute which calls for us to consider whether or not to grant or deny the declaratory ruling. That's poor statutory language because it sounds like we are deciding on the merits, but in fact what we're doing is making a legal determination that the request is complete and that it has touched the various basis that are contained in 150B-4 which you have access to. If we decide to grant the declaratory ruling request that is if we decide to hear the case on the merits we will hear that right now to be scheduled meeting on December 3rd. It has to be before our January meeting because of the time limits in 150B-4. Ms. Hauser do you want to add anything to that. By way of legal direction for us is to the question that we're going to be deciding at this moment.

Ms. Hauser: I would just remind everyone that this is quasi-judicial matter. We've been dealing with quasi-legislative matters up to this point in your rulemaking authority. This is quasi-judicial and you have two members who have recused themselves from this matter. Mr. Hutson has recused and Mr. Phillips has recused himself from this matter. You're to consider the information that's presented to you. The Chairman has already approved the intervenor's motion to participate in this as parties and has already determined that each side will have 15 minutes. The petitioners will have 15 minutes and then the respondents including the intervenors will have a 15 minute period of time split.

Chairman Smith: Thank you ma'am. There was a request for intervention by Duke Energy and since our by-laws relating to declaratory rulings give the chair the authority to grant or deny the request for intervention, a change we made some time ago to make it more convenient on the intervenor so they don't come here not knowing whether or not they're going to be allowed to be a party. I granted Duke Power's request for obvious reasons. They certainly have an interest in this. So we're hear first from Mr. Gerken representing the petitioners and then we'll hear from the combination of either Ms. Cooper or Mr. Laton with the AG's office representing DWQ, and Mr. Case (welcome Mr. Case) representing Duke Energy and Mr. Gerken has up to 15 minutes and then the table on our right has up to 15 minutes. You're welcome to reserve some time for rebuttal. I'll keep your time and this is on the question of whether we hold another hearing on the merits of this case.

Summary:

Request for a Declaratory Ruling by Cape Fear River Watch, Sierra Club, Waterkeeper Alliance, and Western North Carolina Alliance as to the application of rule 15A NCAC 2L .0106 to the given factual situation regarding coal ash ponds at electric generating facilities as set forth in the Petitioners' Request for Declaratory Ruling and in the Factual Stipulations filed on November 2, 2012 jointly by Petitioners and the Division of Water Quality.

In accordance with the Commission's bylaws, the Chairman had previously granted the Motion to Intervene by Duke Energy Carolinas, LLC and Progress Energy Carolinas. As required by N.C.G.S. § 150B-4, the Commission considered the issue of whether the request should be granted or denied. Before the meeting, the parties submitted written argument on this issue.

After considering the written arguments and hearing oral argument from Petitioners, Intervenors Duke Energy Carolinas, LLC and Progress Energy Carolinas, and the Division of Water Quality, Commissioner Tedder made a motion to deny the request for declaratory ruling. It received a second from Commissioner Keen. Following extensive discussion, Commissioner Hall made a substitute motion to grant the request for declaratory ruling and conduct a hearing on the merits. Commissioner Larkin seconded the motion. The Chairman called for a vote and the motion carried (10 in favor, three opposed, two recusals). The Chairman then called for a vote on the main motion, that we grant the petition and hold a hearing on the merits at a later date, and the motion carried (Eight in favor, five opposed, two recusals).

(Meeting recessed at 11:50 a.m.)

(Meeting reconvened at 12:30 p.m.)

III. Information Items

12-15 Update on 2014 Water Quality Assessment Methodology

This item was removed from the agenda.

12-16 Status of Triennial Review Fiscal Note

Connie Brower: Every 3 years the state is required under its delegated federal authority of the Clean Water Act to review its standards and classifications and determine if changes are needed, and if they are necessary to make those changes. Additionally the Clean Water Act requires a review of existing variances for any of our surface water standards that are established by the state. This review process is called the Triennial Review. Today we will provide an update to the status of the federal review and the North Carolina specific Administrative Procedures Act processes and the requirements that we have to do in order to accompany this review. Proposed amendments were approved by this Commission for 15A NCAC 0100 and 0200 rules in March 11, 2010. They were approved then to go to public hearing. I will very briefly describe what those proposals were and go through the additional processes that we will need to make subsequent to these approvals.

The metal standards include a number of revisions based upon input from the USEPA and the general public during our last triennial review. Revisions reflect updates to the National Recommended Water Quality Criterion for metals. They reflect, where appropriate, a dissolved metal concentration. Our current metals are total recoverable metals. The proposals add acute and chronic standards and incorporate some hardness based metal standards expressed as numerical equations to account for the water hardnesses' ability to moderate metals toxicity. The EMC additionally approved for public hearing a revised human health standard applicable to water supplies for 24d. 24d is a chlorophenoxy herbicide. I won't make you say that again. The change is based upon a USEPA updated and a graded risk information system. Additionally the EMC approved a modification to the chlorophyll-a standard, specifically an addition of a regionally specific standard for mountain and upper Piedmont waters of 25 mgl. Mountain and upper Piedmont waters are defined in the rule currently, geographically finding rule. There's a clarification to the frequency of exceedence component. That is to say that not greater than 10% of the data shall exceed the applicable standard. This has been used in our assessment methodology has been put into the rule. These rules again have been approved by the Commission to proceed to public hearings. With that said in accordance with the North Carolina Administrative Procedures Act public hearings for these proposed rules cannot be held until a fiscal analysis is completed by the Division of Water Quality with the concurrence from DENR Budget and Analysis staff and subsequently the note is approved by the Office of State Budget Management for North Carolina Register publication, and then on to public hearing. As surface water quality standards play a vital and key role in the Division's regulation of discharges to surface waters; the water quality based effluent permit limits will be affected by this rulemaking. To facilitate your assessment of this evaluation the Division assembled permit calculations of tools and made them available to the public as well as to the staff for the evaluation. They assembled available discharge and instream data for a subset of all the permitted dischargers, and developed permitting guidance documents for both point source, stormwater programs and additionally for the pretreatment programs. Staff then evaluated facility specific effluent data and water body specific data to more closely examine the potential for a facility to exceed its predicted or anticipated revised permit limit. This has been a very long and very time consuming process. It is very labor intensive as each metal occurring in a discharge of a facility had to be looked at individually, one at a time for each facility for its impact. The good news is that the evaluation is wrapping up. No one is happier than we are. We are in the process of proofreading and validating the cost and benefit numbers for release to the EMC. That is planned for your January meeting. It is our goal to complete the DWQ and DENR evaluation internal review and return the fiscal analysis to the EMC in January. But because of the complexity and depth of this analysis we would understand and do understand that this Commission would need additional time, and would not feel comfortable to make a decision at that January meeting. So it is our intent to provide the document in time for the January meeting with the understanding that we would be returning to the Commission for its consideration in March. DENR Budget staff and OSBM staff will be provided drafts ahead of time and they already have been. Additionally, for your information, we have held meetings with OSBM and DENR Budget staff to aid them in understanding the science behind the rules and the need that we have to correct our water quality standards. We've also had meetings with them to help them understand the permitting process which is a very complex process and some of these changes require a lot of changes to how the permits are actually drafted. If agreement to the note is reached in March by this Commission the fiscal note would be formally submitted to OSBM staff for their final review and approval.

Pending OSBM approval we will proceed to public hearing at that time, in accordance with schedules published in the North Carolina Administrative Procedures Act. Chairman Smith, members of the Commission, that concludes this update.

Mr. Morse: You refer to the chlorophyll-a. Refresh my memory. After we had the regional or the statewide conference did it ever come back to the EMC to establish any kind of standards or come back to us for any kind of ruling, not necessarily ruling but discussion as to where we thought the staff would need to go on that issue? Or has that been incorporated already in your recommendation that's going to be coming to us in January?

Ms. Brower: In January the fiscal note will be coming to you. The rules have already gone through your approval. They've already gone through that process so the fiscal note will come to you, and then we will go out to public hearing. Of course, after public hearings it will return to you for further discussion.

Chairman Smith: For clarification purposes what you are both saying is accurate, but it mixes up two parallel tracks. When we stepped back from the chlorophyll-a rules and then proceeded this past May with the Nutrient Forum, that piece of it has not yet come back to the EMC. Our next information, the Status of North Carolina's Nutrient Criteria and Development Plan, is an outgrowth of the Nutrient Forum and this is a report on how that is proceeding along. Independent of that, 18 months ago we sent out to public hearing the Triennial Review that Ms. Brower is speaking to. Now we are finally working our way through this beast of a fiscal note. So you're on track.

Anything to add to that, Mr. Wakild or Ms. Brower?

Mr. Wakild: That's a good summary.

Mr. Hutson: I hate to ask you this. When do you have to start the next Triennial Review?

Ms. Brower: Yes, that would have been yesterday. That would have been like three years ago but we're moving forward.

Mr. Hutson: I guess I would just ask if there is anything that you have as suggestions that this Commission can do to speed along or help the process of the fiscal review or something of this size, because we're also going to face it with the groundwater standards as well. I'd be interested in hearing those ideas because this takes a long time. You may never catch up is my fear.

Ms. Brower: It does. In this case it really was more a matter of having to look at how the permits were written and the changes were complex. But I would offer that there were a significant amount of people who did submit comments and suggestions, both for benefits and costs to the extent that it was smooth, it is as smooth as it could have been, I think. It has been a challenge but people have been most helpful, the League of Municipalities as well as others. This should be recognized.

Chairman Smith: Other comments? Thank you Ms. Brower.

12-17 Status of NC's Nutrient Criteria Development Plan (NCDP Development

Dianne Reid: I'm here this afternoon to give you an update on the development of the Nutrient Criteria Development Plan. The Division is in the process of taking the information gathered from the nutrient forum and other sources to develop a plan that lays out the steps to be taken to develop criteria for the control of nutrient over-enrichment in North Carolina. This plan is part of North Carolina's Clean Water Act Section 106 Grant Work Plan. That grant provides the majority of the funding used by the Division for monitoring assessment and permitting. This requirement is in the 106 work plans for all states of the U.S. and requires process descriptions, timelines, and milestones for development of nutrient criteria in each state. You may be wondering exactly what do I mean by Nutrient Criteria Development Plan. You can think of the Nutrient Criteria Development Plan as a series of prioritized projects, each identifying questions to be answered, methods to be used, timelines and milestones to be met. You can think of nutrient criteria as encompassing more than just the causal variables. By causal variables I mean nitrogen and phosphorus. For our purposes we also include the response variables: algae, chlorophyll-a, dissolved oxygen, total organic carbon and there are several other response variables that you could use there too. At this time we have a workgroup within the Division from Standards Permitting Monitoring in the Raleigh Regional Office that are using the directives from the nutrient forum to assist in identifying possible projects that would get the state to nutrient criteria at some point in the future. The projects will be shaped by the nutrient forum public input and activities going on around the nation. You can expect the plan to highlight and enhance our current approaches, to provide for expiration of site specific, and water body type specific approaches, to be balanced, fair and scientific, to provide for expiration of building in protection and prevention, to include review of a variety of possible criteria including response variables as I mentioned earlier like benthos, parafined algae, algal densities and also possible cause of variables like nitrogen and phosphorus, and to involve all stakeholders. In looking at North Carolina's current activities we've noted that we can assess lakes, reservoirs and estuaries using our current chlorophyll-a standard. However, while North Carolina does not have a good way of assessing rivers and streams and the chlorophyll-a standard doesn't provide a margin of safety for some waters. In other words, by the time some waters exceed 40 mg per liter of chlorophyll-a standard there are already surface blooms and fishkills. In other instances the waters may exceed the standard and yet there is no apparent environmental response that causes alarm by anyone. One of the goals of this process would be to look at where's the balance line between when a response is a concern and when it's not. These are some of the issues that we think the plan will include. Earlier this week we met with the panelists of the nutrient forum, Chairman Smith, Mayor Moss, Grady McCallie and Jackie Gerrell to get their input on involving the public in the process of developing the Nutrient Criteria Development Plan. Based on those discussions we plan to hold three public input meetings in early December, one in Raleigh, one in the eastern part of the state and one in the western part of the state. As part of the announcement, we will include thoughts from the workgroup to shape the projects that are part of the plan, and get some people some meat to shoot at, and the questions we'd like the public to answer. We're beginning to work on a webpage to provide public access to those thoughts and ideas, questions and any additional information that we feel might be useful. To meet the requirements of the 106 work plan we have to have a final draft to EPA by June 2013. That means coming to the EMC in May 2013 with a final draft after going to the Water Quality Committee in March 2013. The draft will need to be ready by mid February. So as you can see we're on a pretty tight timeline here. There are a couple of things I want to leave you with. One, the Division hasn't already figured out exactly what the plan should contain. We will have some ideas as I noted for the public input sessions, however nothing set in stone at this point. We're really interested in getting public input. Two, the plan is just a road map for the studies for projects for getting to some nutrient criteria, whether response or causal for later adoption through the rulemaking process. The plan itself is not a rulemaking process. Again we have a pretty aggressive timeline. We will be holding the public input meetings in December and taking additional comments through January. Then we will be back to the Water Quality Committee, as I said, in March moving on to the EMC in May, and then to the EPA in June.

Mr. Tedder: Just a quick comment. Dianne that was a great summary. I was wondering if it would be possible that they have that included in the minutes. Maybe not the minutes but on the website as well as you've got an existing plan that's been in place for a long time. That might be another piece of information to get available for folks, especially with this very quick turnaround that you're facing to bring something back in February timeframe. That's just a suggestion.

Ms. Reid: That's good. It is posted currently on our website. But doing a separate webpage for this process, we'll make sure that it's part of that.

Mr. Keen: As far as development nutrient use or doing away with that, and considering the regionalization throughout the state, and you're identifying projects, commercial, development, residential and things of this nature representing, I guess Commissioners are, we've got municipality here. With that, is it possible to use different avenues to get the word out? You said you were going to eastern, central and western. I guess I'm thinking of the Council of Governments. We're talking about transparency earlier. Now you've got a timeline in December, is that enough time to actually get that information that you need to move forward. I guess what are the avenues that you're going to use to have these public meetings?

Ms. Reid: We have a variety of listserves. We do have the Council of Governments or Municipalities. In terms of projects, you might think of projects more as studies, in terms of what's going to be in the plan. But we will reach out to, we will put the announcement through our rulemaking listserve, our standards and classifications listserve, and any other avenues that are open to us. In talking with the panelists earlier this week, one of the things that was asked was whether or not we would be available to do additional meetings with folks that might be interested. We definitely have staff available to do that.

Mr. Keen: I noticed in Department of Commerce and Economic Development Commission as just a follow up in having these areas of interest when you're talking about nutrient reduction or controlling that, it's vital that when they go into these it is what the environmental impact will be in the region as commerce develops in the particular parts of the state. I was trying to just get included in the public your builders, your developers and stakeholders throughout the regions.

Ms. Reid: Can I just add one more thing as far as stakeholders? The plan will also encompass laying out that there will be additional stakeholder opportunities as we're moving forward with each of the projects or studies that are part of the plan. So that will also allow for more stakeholder input as we move forward.

Mr. Keen: Thank you.

Mr. Morse: I think one of the factors that is going to make this process successful is the inclusion of the stakeholders group. I appreciate the effort that the state staff is doing to include the stakeholders. I think that's going to be one of the keys to get them to buy in early. I would also

encourage the members of the Commission to also attend these meetings because ultimately it's coming to us to approve. The more opportunity we have as individual Commissioners to become more aware of the issues and listen to the stakeholders, it will help expedite the process that we're going to have to go through. I plan myself to be very much engaged in the public hearing process in communicating with the staff, as my role as a Commissioner and also, of course as a manager.

Mr. Hutson: Does EPA have to approve this plan?

Ms. Reid: It has to be a mutually agreed upon plan, yeah.

Mr. Hutson: That's wonderful language. Thank you.

12-18 Annual Update on Neuse & Tar-Pamlico Agricultural Rules

John Huisman: I'm here today to present the annual agricultural progress reports for the Neuse and the Tar-Pamlico river basins on behalf of the Basin Oversight Committees in both basins. I did give a similar presentation to the Water Quality Committee yesterday. We had a robust discussion about the progress reports. In light of that and in the interest of time today I've slightly condensed my presentation today, just to highlight the many points of the progress reports. Real quickly, just to give you some background about the Neuse and the Tar-Pamlico to help orient you about the river basins that we're talking about.

The Neuse and Tar-Pamlico are relatively large river basins in North Carolina and they're similar in that they both stretch from the Piedmont area down to the coast. They share similar soil types, similar agricultural practices that are done in both river basins, and their respective estuaries both are not meeting the chlorophyll-a standard and they're impacted by nutrient loading. As a result we have nutrient management strategies in place in both river basins calling for reductions from various sources. As a part of this overall nutrient management strategy there's an agricultural rule in each river basin. The Neuse ag rule has been in place since 1998 and the Tar-Pamlico since 2001. The goals of each of these rules is a 30% reduction in nitrogen load from agriculture relative to the baseline year. In the Neuse the baseline year is 1991 to 95 and the Tar-Pamlico is 1991. The Tar-Pamlico has an additional requirement for phosphorus calling for no increase in a phosphorus load relative to the baseline. The way these rules are implemented is through a collective implementation approach. What we mean by that is there's not individual requirements for farmers. It calls for reductions from agriculture as a whole. The rules call for the formation of a Basin Oversight Committee in each basin as well as local advisory committees in each of the 31 counties, and these committees help the agricultural community implement the rules and comply with the requirements. The LACs and river basin technicians collect information that are summarizing annual reports which are provided to you on a annual basis per the rule. The main tracking that's done for nitrogen is through the nitrogen loss evaluation worksheet accounting tool that we call NLEW and this tool essentially is an imperatively based spreadsheet model that estimates changes in nitrogen loss from ag land. It doesn't estimate changes in loading. It simply calculates estimated nitrogen loss number for ag as a whole in the baseline year and the current crop year, and we compare the two to see any changes in nitrogen loss between that time period. This table shows a summary of the Neuse estimated nitrogen loss reductions for the 17 counties and the basin as a whole we show 2010 and 2011 for comparison. Again these percentages represent a reduction in the amount of nitrogen loss from agricultural land relative to that 1991-95 baseline. We break it down by county. Per the rule there's a 30% reduction requirement. As you can see in 2011

agriculture as a whole achieved a 45% reduction in nitrogen loss. That's compared to the 49% reduction back in 2010 and that's mainly due to a change in shifting of crops from lower nitrogen crops to higher nitrogen crops like cotton. Essentially these reductions are achieved in three ways through implementing BMPs, reducing the amount of nitrogen that's applied and shifting of crops going from high nitrogen crops to low nitrogen crops. This table shows the number for the Tar-Pamlico River Basin. Here in the Tar-Pamlico there are 14 counties and we have it broken out by county and for 2010, 2011. If you look at the bottom you get the sum total for agricultural as a whole and the Tar-Pamlico was meeting 43% reduction in nitrogen loss relative to the 1991 baseline. That's compared to the 49% in 2010. The main reason for the change in the reduction between 2010 and 2011 was the shifting of crops and there's also some changes to the way we gave credit for buffers in the NLEW tool, and that had a heavier impact in the Tar-Pamlico than it did in the Neuse. But overall they're still meeting their reduction goals.

As I mentioned earlier there's an added requirement in the Tar-Pamlico calling for no increase in phosphorus relative to the baseline year and it calls for the development of a phosphorus accounting tool. Back in 2004 a Phosphorus Technical Advisory Committee was formed and developed an accounting method that was brought forth to the EMC and approved for tracking phosphorus. As you know phosphorus behaves differently in the environment than nitrogen and the PTAC Committee found it wasn't possible to have a quantitative tool so instead brought forward a method indicator to assess the risk of phosphorus loss. Essentially there are nine indicators that characterize changes in land use in the basin and management practices to assess phosphorus loss risk in the current year compared to the 91 baseline. So it looks at things like the amount of overall crop land, different practices like water control structures and conservation tillage, amount of animal waste generated, soil test p and determines whether the numbers for the current year represent an increased risk of phosphorus loss compared to the numbers in the baseline year. Based on the 2011 numbers the Basin Oversight Committee found that there was no net increase risk in phosphorus loss in the Tar-Pamlico River Basin. So in conclusion both river basin agricultural communities are meeting the 30% reduction goals and, moving forward, DWQ will continue to work with the Division of Soil, Water and Conservation and the river basin technicians and the LACs to encourage continued BMP implementation. Specifically, we'll be targeting outreach in the Falls Lake watershed that, as you know, has a new management strategy in place. The technicians do have plans to continue to meet with the Local Advisory Committee meetings throughout the winter and spring of 2013. Real quickly I'd just like to acknowledge the various groups that are involved in implementing this rule and helping to generate the report. This is a collaborative effort between DWQ, Division of Soil and Water Conservation and then the other agencies that participate on the Basin Oversight Committees and the LACs. With that I'm happy to take any questions that you may have.

Chairman Smith: Thank you Mr. Huisman. Good report.

12-19 Status Report on the Study of Surface Water Quality Associated with Swine

Chairman Smith: I think this is end of the second year of this study, is that correct Mr. Larick?

Keith Larick: It's the end of the first year. As Chairman Smith said we have been doing a study of surface water quality that's associated with swine animal feeding operations for the past year or so. I am here to give you an update on that today.

Basically the study is going to discuss the timeline of the process that Chairman Smith said it has been going on from its very beginning for a while now, the study plan itself and then our current status. The process actually started back in 2007 and that is when DENR received a petition for rulemaking that requested the EMC develop surface water monitoring rules for swine operations. Sort of at the same time while that process was going on DWQ looked into the possibility of doing a study either in place of or alongside the rules. We found some funding to do that and found a partner with the U.S. geological survey to do the study. To meet the requirements of the petition process we did bring proposed rules to the Commission in 2011. Those rules were not adopted by the EMC. The Commission did request to be kept up to date on the study that's going on and any of the results. The purpose of the study in general to just have a water quality focus sampling study to characterize nutrient concentrations that are associated with swine operations in the coastal plain, collecting samples that reflect watershed or drainage area contributions and then follow up with focus sampling in specific drainage areas. There will be some statistical analysis of the sample results going on to determine if we can find differences between the various study sites. The overall goals is to generate the data set that can provide us scientific basis to determine the adequacy of existing regulations or should additional regulations be developed. The study tasks themselves, obviously, the first one is to develop the network of sampling sites. Step two is the water quality sampling which is where we are right now, and then the third task will be to analyze and summarize that data. A lot of you are probably familiar with this map in some form. It basically outlines the locations of swine operations in the state. I think most folks are familiar that it is generally the coastal plain specifically the southeastern part of the state. It is where most firms are located. We did have a pretty significant effort to fine tune the data base, make sure we had very detailed latitude, longitude data for each file which was the purpose of the study. The site selection – the study focuses on a drainage area approach. Focusing on road crossings at streams, collecting surface water samples that indicate the contributions leading through the drainage area to that sample point. Then following up from that we'll have sampling at some individual farms that can tell us more about what we're learning with drainage area samples. The drainage areas (you're probably familiar with the 8 and 12 digit hydrologic units) in this study are much smaller than those hydrologic units that you're familiar with. The largest one in this study is 18 sq. miles. The way that's developed is the USGS is developed streams stat software and what that allows the user to do is basically click on a point on a stream and the software uses lidar data to determine the drainage area to that point. So it gives the user flexibility you can pick, like I say road crossings easily accessible sample points and know what the drainage area coming to that point is. I'll illustrate that in some slides later on. The small watersheds allow more control over background variables that could influence your sample results, and it also lets us have drainage areas with varying swine densities. So you can have some that have a few swine farms and some that have more. One issue that we did run across when developing these drainage areas was the abundance of poultry operations. Essentially, down east in areas where you have swine farms you're also going to have poultry farms. Obviously that can complicate your ability to determine effects from swine operations if there's this other source. There's not much data available to us on the locations of poultry operations. So the strategy that we came up with to address that, using Google Earth to look at our drainage areas, the barns stand out fairly well when you look at aerial photography. So we were able to characterize the number of barns in each drainage area. In the end, we have sort of and partially incorporated some of these poultry operations into the study. When we look at our drainage areas there are some things that we're looking for. Number one the size of the

drainage area itself, the percent of ag land cover, density of the swine farms in that drainage area, and then the ratio of swine to poultry. As I said the largest drainage area that we're dealing with in this study is 18 sq. miles. The ag land cover also varies from 20% to 70% and I'll also say we did make every effort to eliminate other variables. We have, obviously, permitted sites for wastewater discharges, also for non-discharge wastewater facilities. We've been able to use that data to make sure that our drainage areas that we've selected do not include any of those variables. We were also able to eliminate active residual land application fields. Additionally each watershed has less than 10% developed area. So using all of that information we're able to basically find 92 of these drainage areas that fit into one of three categories, that's: background sites with no animal operations, drainage areas that only include swine operations but no apparent poultry and then we had a subset that included swine and poultry. The USGS did do some site visits to all of these locations to make sure that they could be accurately sampled, that they were accessible. In the end we came up with 18 sites for each type so we have 18 backgrounds, 18 with swine and 18 with swine and poultry.

This is a map that shows the location of the watersheds. As you can see they are all in the coastal plain and vary in size. This slide shows two examples of drainage areas in the study. The top drainage area is a background site with no swine or poultry operations and the bottom drainage area contains swine operations only as indicated by the yellowish dots. One more quick point about the stream stat software is, these are road crossings here and so what that software lets you do is pick that point, and then it uses the lidar data to draw in this drainage area. This is an example of a drainage area that includes swine and what we call likely poultry operations because at the time we were not sure that they were active. We did have some discussions with the Department of Agriculture. They were able to confirm that these dots that we have identified for the study are in fact all active poultry operations. That was the only information that they were willing to share. I would make one quick point. You see a couple of dots that are right on the border. We had to make some judgment calls on whether to include a site in a drainage area or not. Basically if the lagoons fell inside and the majority of the spray fields fell inside the drainage area, we included it. If the lagoons fell outside in most cases, we would kick it out of the drainage area. What are we sampling for in the study? The focus is going to be nutrients, the nitrogen series and phosphorus. We are doing some other ion and isotope work. What the isotopes can tell you and some of this is newly emerging type studies but the difference between commercial fertilizer and animal waste that the ratio of those isotopes can give you some indication what type of result you're seeing there. The oxygen isotopes can tell you a little bit about whether the water that you see is rainwater vs. groundwater base flow. One note about stream flow – we are not planning to measure stream flow during the study so there won't be actual loading data. It will just be concentration data and really it's just physical and technical issues when you have a long study like this. There just wasn't the confidence there that we'd be able to accurately collect stream flow throughout the study. So once all that watershed sampling is done we will have some follow up sampling in watersheds of interest. We'll look at the five rounds of sampling that we're going to be doing, look at that data and pick a few watersheds that catch our eye and go into those watersheds and try and figure out what's going on there. We may sample individual farms to try and figure out where pollutants may be coming from. We may go downstream to determine the fate of pollutants as they move down the stream. It could just be various points of interest up in the watershed where different water features come together, and things like that. When we perform this follow up sampling at some individual farms; these are some of the parameters of those farms that we'll have an interest in, the nitrogen

balance of that farm. When a farm gets permitted there, they are required to give us a plan that shows us that they can utilize all the nutrients that are being generated. Some farms have much more land than needed. Some farms have enough to just get by. So that's just one factor we will look at. The total acreage that they land apply on whether or not there could be drain tiles at that farm that are leading to some of the results that we see. Then just the size of the farm, does that make a difference? The timeline – we're almost midway through the study. There are five rounds of sampling planned for the watershed type sampling and we have done three of those rounds. I should say USGS has done three of those. The bottom end date for the study, hopefully is in 2014. With that I'll be happy to take any questions.

Mr. Cavanaugh: What sampling have you been able to analyze so far? Are you finding any surprises?

Mr. Larick: We don't have results into a point where we can make any decision. We're doing a couple of months apart. We've got three rounds in. I think the results have come back from one of the rounds but it's really too early to have it yet.

Mr. Tedder: I'm glad to see a study like this going on. I guess what caught my attention was and you very politely answered the question as far as location of poultry operations. Have they at least confirmed the three you picked are active. I'm assuming there was no volunteer information of how many you missed.

Mr. Larick: We have the 18 drainage areas that do include poultry operations. We had the latitude longitude for each one of those when USGS looked at the aerial photography. The Department of Agriculture did confirm that at all of those points we sent them there was an active poultry operation of some type. They had concerns about their statutory obligation to keep stuff confidential. But they did tell us they are active operations.

Mr. Tedder: I think we've been asking that same question since 1996 if I remember correctly. So obviously they at least are consistent. You had a lot of areas here where you focused on where you've got some swine and poultry, but I didn't see any where it was just poultry in the study designed. Is that correct?

Mr. Larick: That is correct. The focus of the study was swine going back to the original petition that we intended.

Mr. Tedder: And I understand the intent of the study and I agree with that. I just kind of say like sometimes missing some opportunities at the very same time, when especially in the areas where you were showing some of the largest poultry production in the state. We're number two nationally, I believe. You can't count the birds, you can't count the information for the amount of litter that's being applied there for the number of acres. The reason I bring that up, is we're looking at the Neuse and others where we pull out the point source. We control the swine operations. We're doing our best as we can with the methods we have of accountability for agricultural crops but the numbers aren't going down. So are there other complicating factors that we need to look at before we turn around and then start squeezing more blood out of one of

the same turnips we had before, at least looking at some other things we need to be looking at? I just bring that up as a comment.

Mr. Keen: And adding to that would be poultry, if you have identified these entities you have a footprint of an established market. As time moves forward, whether it be five or ten or fifteen years, when you, I guess for clarification when they're licensed or when they're permitted. We have that available to us in the data that you have to come up with or this body would just have to make some ruling on possibly in five or ten years. Are these established? We have to know that these are already established like the swine is and the poultry, and if you have these large poultry processing plants coming in to these regions, you identify the source certainly if production to go into those plants, you got to know where they're coming from. For longevity purposes to stay in business once you've identified it, the footprint has been established. It's like a military base; once the footprint's there but the mission may change. Do you protect that footprint? I think we would have to know where these operations are. Are you not finding those locations throughout and identifying those?

Ms. Pickle: I have a question about the isotopic analysis. You said that it could distinguish between commercial fertilizers and swine waste.

Mr. Larick: The ratio of those isotopes can help tell you whether it's related to commercial fertilizer or organic sources. Thank you for bringing that up.

Ms. Pickle: Not to add anything more to the study but to pile on comments on how great it would be to have some additional poultry information, I believe that the revisions to the non discharge rules included a registration requirement for manure haulers or litter haul that would primarily apply to poultry operations. I can't recall whether or not that included a provision that described where they were applying or just the amount they were moving around. I didn't know if that would add additional information as to whether or not litter applied in the area might be impacting the ratio of commercial to organic fertilizers that you all might find in the surface water analysis.

Mr. Larick: I'm not sure about the second part of the question. But for the first part of the question yes, the 2T rule package in 2006 did have regulations for manure haulers and those haulers typically worked with poultry litter. We do have a registration process for that and we do get some annual reports in, some better than others about where they collect litter from and where it gets land applied. But that would only reflect the amount of litter being disposed of through that method. It wouldn't capture any poultry farm that manages their own litter.

Ms. Pickle: I'm wondering if it might affect (because of the size of the watershed that you all selected for study) some of the areas, the baseline or the no swine/no poultry.

Mr. Larick: It could potentially. If there is poultry litter being land applied by a hauler in one of those background watersheds, we wouldn't necessarily know that.

Ms. Pickle: If you picked up that higher organic signature in those baseline watersheds, it still might be tied, although not to the, and this is where it is sort of off track for the purpose of the

study, it's not going to tell you, obviously since swine waste isn't handled in that same manner. But it might confuse the signal between the basins that have swine and poultry, the basins are supposed to have nothing and the ones that are swine only.

Mr. Larick: It's a potential monkey wrench. But it's not one that we really have any control over, we don't feel like.

Dr. Larkin: Can you talk a little bit more about the sampling process? Is that longitudinal, episodic, continuous? How would you characterize that process?

Mr. Larick: The sampling process, there are 18 for each type so that's 54 sample points that we have that reflect the 54 drainage areas. So it would be five grab samples taken from those drainage areas at those samplings.

Dr. Larkin: Over the course of?

Mr. Larick: Over the course of about one year bi-monthly. Over a ten month period we'll be taking five samples.

Dr. Larkin: Ok. So that's pretty spread out. That's not many samples; it doesn't seem to me. We're looking at something that probably if there are discharges or if there is increased nutrients, that's a very episodic sort of thing and the sample once a month or once every two months is a little bit of a hit or miss characteristic, it sounds like.

Mr. Larick: Potentially. I don't think the purpose of the study is necessarily to discover previously undocumented discharges. I think the focus of the study is more, assuming that farms are operating under the conditions of their permit, what would more long term typical impacts be from these types of facilities (if that makes sense.).

Dr. Larkin: That's one purpose I guess.

Ms. Deerhake: First of all I think we, the state, should be appreciative to USGS for stepping up to work on this because they bring a lot of not only financial but significant, technical resources including the LIDAR to this. So I think we all thank USGS for helping. Is there a peer review or any kind of technical advisory committee that's been established to follow this planning?

Mr. Larick: There's no outside advisory committee. The study and the report will go through the USGS established review process.

Ms. Deerhake: Ok. That's good to know. Tell us exactly what's the sampling point. You were talking about road crossing so you're looking at just ambient stream sampling or are you going to very targeted locations to sample?

Mr. Larick: Each drainage area, so there are 18 that are background, 18 swine and poultry and we did want to have sample locations that were easily accessible that we weren't going to have to get landowner permission and things like that. You could sort of look at it and I don't know if

ambient monitoring is the exact right term, but it is just a reflection of everything in that drainage area to that sample point.

Ms. Deerhake: How do you factor in weather conditions? Does that factor into your decision making about when you sample? Heavy rainfall days or drought conditions?

Mr. Harden: I'm Steve Harden of the USGS, the project lead in our office. Originally one of the proposals for this was just to sample once or twice, but we've elected to sample like five or six times to just get a framework seasonally over a year at all these sites. We have been going out on a bi-monthly, pretty much just a fixed basis. We're not able to move the dischargers because these are a lot of swampy systems, low flowing streams, just kind of a backed up water, but we're sampling either at bridges or culverts or wherever the road is crossing the stream. To get enough points for each site type, you know statistically we can look at the data and see if there are differences in the concentrations along the site types. Then as we find, look at the results and if there's some interesting watersheds or some that appear to be more problematic than others we can, as Keith was saying, we can go in and dig a little deeper and look more at individual farms or different areas within that system.

Chairman Smith: Let me say an additional thank you for the USGS. They're providing half the money for this study. We are very appreciative of that. Other questions or comments?

Mr. Keen: If I might, Dr. Larkin I was thinking of what you were saying, and the indicator process as we go forward, and how to establish these indicators. This is just a one or two years, but if it's data that's being accumulated and we set the bar, and then those indicators are to be brought in year after year, I think it is very important that we know the weather conditions and the time of year. Have you considered that as we go forward to establish something like that?

Mr. Larick: We certainly know the time of year that samples are taken. I think the idea was generally over the course of the year, you're going to capture the four seasons, you're going to capture spring and summer when you have more application of animal waste vs. the winter. You capture the winter months when you have higher water tables and higher stream base flow over the course of a year. That was the idea. If you sample at various points throughout the entire year, essentially you'll capture as much of that variability as you can, hopefully.

Chairman Smith: I have one other question about a study that's going on near LaGrange in a stream segment, a study from someone from NC State that uses some form of light spectrum analysis

Jay Sauber: Mr. Chairman, I'm Jay Sauber, Chief of the Environmental Sciences Section of the Division of Water Quality. The study you're referring to has indeed been funded by the Division. It is a photometric evaluation and it is an experimental evaluation that is funded through some nonpoint source money activities. Chris Osborne and Dr. Hans Pearler are participating in that study and it is an experimental approach. We expect that there will be some success, hence we funded that study, but we're uncertain as to how rigorous or how detailed that analysis, that spectral information, will provide us. That study and that information, of course will be shared with you at that time. But at this moment, it really is an experimental procedure

that we have great hopes in but it's not something that we know as of yet whether it's something we can hang our hat on.

Chairman Smith: Thank you sir.

III. Status Reports

Water Allocation Committee Mayor Darryl Moss, Chairman

The Water Allocation did meet yesterday, however we did not have a quorum. The good news is we did not have any action items. We did have one informational item that we did listen to. That was on the Charlotte-Mecklenburg utilities interbasin transfer, getting some background on this certificate and beginning to receive some information on the reopener process because that is going to come into play. I guess it is expected that item will come before the EMC sometime next year. Mr. Chair, I did ask Sarah to put this back on the Water Allocation Committee's January agenda just so the other members that were not present can get the briefing.

Water Quality Committee Dr. Ernest Larkin

The Water Quality Committee did attain a quorum. We did have five items, four of which were discussed here today in the Commission meeting. The fifth was a request to proceed to the EMC with session law revisions to the Jordan Lake nutrient strategy. We did approve that and we'll be seeing that in the Commission in January.

[The Groundwater Committee did not meet.]

C. **Air Quality Committee** Marion Deerhake, Chairman

The Air Quality Committee did meet. We had two agenda items that were before you today including the 30 day waiver discussions. Then we had an information item on the air toxics legislation stakeholder meeting which was held in late September. The legislature is requiring that the Division evaluate the Air Toxics Program and provide a report by the beginning of December. So we received an update on how the meeting went. The public comments are coming in and being summarized in the progress in developing the report. The staff had seven concepts that they were considering proposing or seeking public comment on for the December report dealing with the existing program. Those can be made available if anyone's interested.

[The Steering Committee nor the NPDES Committee had business before them so they did not meet.]

D. Renewable Energy Committee Dickson Phillips, Chairman

The Renewable Energy Committee met. I guess a shadow session because we also lacked a quorum but we had only one information item which was a very excellent presentation from John Morrison, formerly of the State Commerce Department and now with Stratus Solar which is a client of my firm and, therefore during that presentation I sat down and you acted as Chair. Basically reporting on the regulatory environment for development of solar energy in the state and bottom line was that he reported it a very good regulatory environment for the time being for larger scale projects. But smaller scale distributed energy could use some form of encouragement. I then reported also that we have done some tweaks to the wind legislation that we worked on several years ago, but asked to bring that back to the next meeting with a little more contextual information about wind energy development at the present time.

IV. Concluding Remarks

Mr. Keen: I would like to bring up just a quick issue on the wind energy. It's been back and forth about the eastern North Carolina issue with wind energy and the wind towers, and not understanding completely what the Governor had put together about having DENR to interevene in some way, maybe looking at these wind towers. Was there any issue or is it possible to even bring that issue back when you have the report.

Mr. Phillips: Staff has taken the wind bill as it came out of the committees of the legislature some years ago and has added some provisions about the military installation conflict. But I wanted us to look at that whole proposition with a little more contextual information. So we're going to bring that up in January. I think that will be timely in relation to the session.

(No comments from the Directors.)

Ms. Hauser: It's been my pleasure to be with you again today. Thank you.

With no further comments the meeting adjourned at 1:50 p.m.

NOTE: Attachments are on file in the Division of Water Quality with the Official Minutes.

Lois C. Thomas, Recording Clerk

By Commission Members

By Directors

By Counsel

By Chairman

Adjournment AG011-08-12